

REMARKS

Restriction Requirement

The Office Action divided the claims into two groups: Group I, claims 1-15, drawn to a method of converting hydrocarbon fuel to syngas; and Group II, claims 16-27, drawn to an apparatus for converting hydrocarbon fuel to syngas. Applicants elect, with traverse, claims 1-15. Applicants traverse because search and examination of Groups I and II together would not present an undue burden.

Amendments

In accordance with the above election, claims 16-27 are cancelled. Accordingly, claims 1-15 are pending in the application. Claim 8 is currently amended to clarify that “said oxidation catalyst” comprises a noble metal. Support for this amendment can be found throughout the specification, including claim 4 and page 3, line 28. Claims 1 and 15 are currently amended to include the limitation that the process operates essentially free of steam or water. Support for these amendments can be found throughout the specification, including claim 12 and page 15, line 6. Reconsideration of the present application, as amended, and allowance of the pending claims is respectfully requested in view of the following remarks.

Rejection Under 35 U.S.C. § 112

The Examiner rejected claim 8 under U.S.C. § 112, 2nd paragraph for having insufficient antecedent basis for “said noble metal.” Applicants have amended claim 8 to clarify that the limitation is with respect to “said oxidation catalyst,” rendering the rejection moot.

Rejection Under 35 U.S.C. § 102

The Examiner rejected claims 1-3, 6, 8, 9, 13, 14, and 15 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,331,451 to Isogaya et al. (hereinafter "Isogaya"). Applicants respectfully traverse the rejection.

MPEP § 2131 provides that "A claim is anticipated only if each and every element as set forth in the claim is found." The applicant respectfully submits that not all elements and limitations are set forth by the prior art reference cited by the examiner. Contrary to the examiner's statement that all elements and limitations are disclosed by the prior art references, the element of a process *essentially free of water or steam* is not. Specifically, Isogaya utilizes steam and chromium oxide catalysts and discloses that the preferred steam (mole) to carbon atom ratio is 0.3 to 7 to control carbon deposition and methane residue. Accordingly, this rejection is unsupported by the art and must be withdrawn.

Rejection Under 35 U.S.C. § 103

The Examiner rejected claims 4, 5, 7, and 10-11 under 35 U.S.C. § 103(a) as being obvious over Isogaya in view of U.S. Patent 5,010,051 to Rudy (hereinafter "Rudy") and claim 12 as being unpatentable over Isogaya in view of U.S. Patent 4,854,943 to Voeste (hereinafter "Voeste"). Applicants respectfully traverse the rejection.

Contrary to the examiner's assertion that the combination of the cited references discloses each element and limitation, the element of a process *essentially free of water or steam* is not. Isogaya discloses a process for the gasification of heavy distillates to obtain a gas rich in hydrogen and carbon monoxide with a low methane content. Rudy discloses a process for reducing contaminants in gases using a three-way conversion catalyst. Voeste discloses a process for producing a gas rich in carbon monoxide by catalytic cracking of gaseous or

vaporized hydrocarbons. None of these references teach or suggest that the process of converting hydrocarbons to syngas is performed essentially free of steam or water. Moreover, the Examiner improperly construes Voeste as providing for a feed gas essentially free of water when Voeste discloses that “[i]n case of need, the water vapor content of the mixture may be increased in that water vapor is supplied in the combustion gas or in the preheated remaining hydrocarbons.” Accordingly, the rejections are unsupported by the prior art and must be withdrawn.

Rejection for Non-Statutory Obviousness-Type Double Patenting

The Examiner provisionally rejected claim 1 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of co-pending Application No. 10/605,737 in view of Isogaya. Applicants respectfully traverse the rejection.

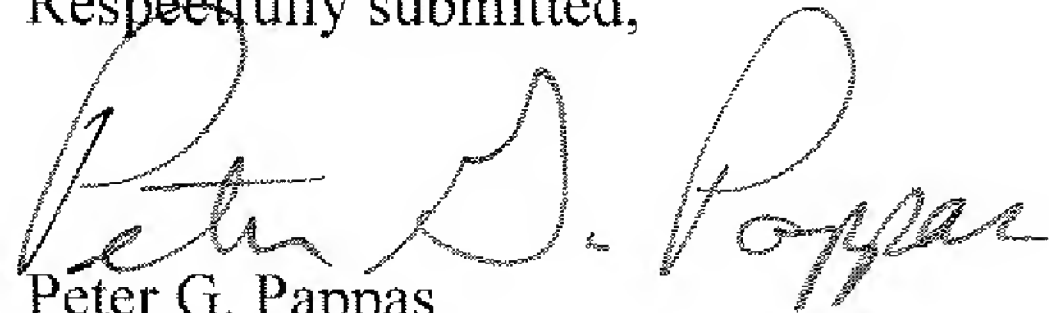
The claims of co-pending application 10/605,737 do not suggest the particular embodiment of the present claims. In particular, nothing in claims 1-28 of the co-pending application would motivate one skilled in the art to select a particular combination of features defining the present Applicants’ claims. Similarly, the claims of Isogaya do not suggest the particular embodiment of the present claims. That a claim of the co-pending application may have a limitation that overlaps with a particular limitation in the present application does not equate to motivation to make the particular combination of features required to meet a particular claim of the present application.

Conclusions

For the foregoing reasons, Applicants submit that claims 1-15 are novel and nonobvious in view of the prior art. Allowance of the pending claims is therefore earnestly solicited.

If there are any issues which can be resolved by a telephone conference or an examiner's amendment, the Examiner is invited to telephone the attorney at (404) 853-8064.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peter G. Pappas". The signature is fluid and cursive, with the first name "Peter" and last name "Pappas" clearly distinguishable.

Peter G. Pappas

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